



1/3

$$f_1(x_1(t), x_2(t), x_3(t), (x_1(t), x_2(t), x_3(t), p_1, p_2, p_3)) = x_1(t) - x_2(t) - x_3(t),$$

$$f_2(x_1(t), x_2(t), x_3(t), (x_1(t), x_2(t), x_3(t), p_1, p_2, p_3)) = p_1 \cdot x_1(t) + p_2 \cdot x_3(t),$$

$$f_3(x_1(t), x_2(t), x_3(t), (x_1(t), x_2(t), x_3(t), p_1, p_2, p_3)) = p_3 \cdot x_2(t) - p_2 \cdot x_3(t),$$

$$\underline{p} = \begin{pmatrix} p_1 \\ p_2 \\ p_3 \end{pmatrix}$$

FIG. 1

$$\underline{\underline{A}} = \begin{pmatrix} * & * & * \\ * & 0 & * \\ 0 & * & * \end{pmatrix} \quad \left. \quad \begin{array}{l} \\ \\ \end{array} \right\} \text{FIG. 2}$$

$$T = \{(1,1), (2,3), (3,2)\}$$

2/3

$$\begin{aligned}f_1(x_1(t), x_2(t), x_3(t), p_1, p_2, p_3) &= x_1(t) - x_2(t) - x_3(t), \\f_2(x_1(t), x_2(t), x_3(t), p_1, p_2, p_3) &= p_2 \cdot x_3(t), \\f_3(x_1(t), x_2(t), x_3(t), p_1, p_2, p_3) &= -p_2 \cdot x_3(t),\end{aligned}$$

$$\underline{p} = \begin{pmatrix} p_1 \\ p_2 \\ p_3 \end{pmatrix}$$

FIG. 3

$$\underline{\underline{A}} = \begin{pmatrix} * & * & * \\ * & 0 & * \\ 0 & * & * \end{pmatrix}$$

$$T = \{(1,1), (2,3)\}$$

$$Z = \{[2,3]\}$$

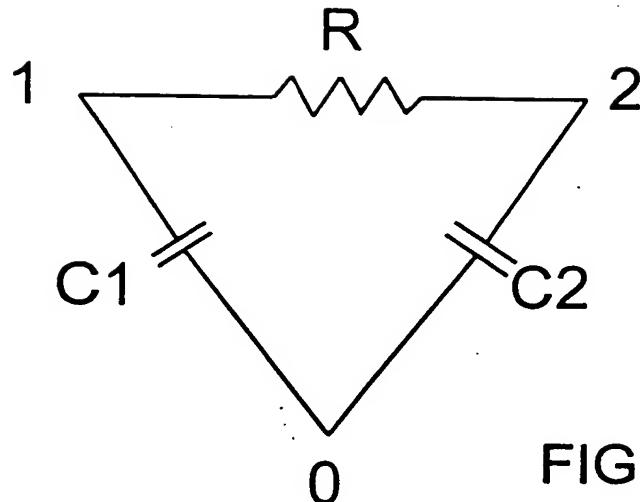
$$S = \{[1,2]\}$$

FIG. 4

A row rank with the elements 2, 3 was found.

A column rank with the elements 1, 2 was found.

FIG. 5



$G = ($  "1: Kirchhoff voltage equation for the mesh comprising C1, R, C2"  
 "2: Kirchhoff current equation for the node 1",  
 "3: Kirchhoff current equation for the node 2")

$K = ($  "1: Voltage between nodes 1 and 0",  
 "2: Voltage between nodes 2 and 0",  
 "3: Voltage between nodes 1 and 2")

FIG. 7

A row rank having the elements  
 "2: Kirchhoff current equation for the node 1",  
 "3: Kirchhoff current equation for the node 2"  
 was found.

A column rank having the elements  
 "1: Voltage between nodes 1 and 0"  
 "2: Voltage between nodes 2 and 0"  
 was found.

FIG. 8